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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/753,968  | 01/08/2004  | Wolfgang Papiernik   | PAPIERNIK-2         | 5670             |
| 20151   | 7590        | 01/30/2006           | EXAMINER            |                  |
| HENRY M FEIEREISEN, LLC<br>350 FIFTH AVENUE<br>SUITE 4714<br>NEW YORK, NY 10118 |             |                      | PHAM, THOMAS K      |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2121                |                  |

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/753,968

Applicant(s)

PAPIERNIK ET AL.

Examiner

Thomas K. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 7, 9 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**First Action on the Merits**

1. Claims 1-12 of U.S. Application 10/753,968 filed on 01/08/2004 are presented for examination.

**Quotations of U.S. Code Title 35**

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### **Claim Rejections - 35 USC § 102**

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipate by U.S. Patent No. 5,036,265 (“Weihrich”).

#### **Regarding claim 1**

Weihrich teaches a method for identifying a control path of a controlled system, comprising the steps of:

- determining at least one deterministic perturbation correcting signal in a first identification process (see Col. 4 lines 1-14);
- storing the perturbation correcting signal in the form of a function (see Col. 3 lines 41-50 and Col. 14 lines 12-17); and
- identifying a control path of the controlled system in a second identification process by adding to the controlled system the at least one stored deterministic perturbation correcting signal with a negative feedback (see Col. 4 lines 15-38).

#### **Regarding claim 2**

Weihrich teaches the function is stored in the form of a table and/or in the form of splines (see Col. 3 lines 41-54).

#### **Regarding claim 3**

Weihrich teaches the at least one deterministic perturbation correcting signal is determined from an output signal obtained from at least one controller of a closed control loop of the controlled system (see Col. 4 lines 29-38).

#### **Regarding claim 4**

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Weihrich teaches setting an amplification factor of the controller to a high value for determining the deterministic perturbation correcting signal in the first identification process (see Col. 4 lines 41-48).

**Regarding claim 5**

Weihrich teaches setting an amplification factor of the controller to a low value for identifying a control path of the controlled system in the second identification process (see Col. 4 lines 41-48).

**Regarding claim 6**

Weihrich teaches applying in the second identification process to the input of the controlled system a stimulus signal for exciting the controlled system (see FIG. 2 and Col. 5 lines 50-61).

**Regarding claim 8**

Weihrich teaches the perturbation correcting signal is added at the same location where a deterministic perturbation is applied in the controlled system (see FIG. 1, "disturbance correction signal  $z$ " is applied relatively at the same location with the disturbance signal  $z(w)$ ).

**Claim Rejections - 35 USC § 103**

7. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weihrich.

**Regarding claim 11**

Weihrich do not specifically disclose the system is employed in a machine tool, a production machine or a robot. "Official Notice" is taken for both the concept and advantages of employing a system for identifying control path to a machine tool, a production machine or a robot is well known and expected in the art. U.S. Patent No. 5,777,871 to Wise teaches a servo-control system

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with digital and analog error compensation employed in aircraft, ground vehicles, robots and the like (see Col. 1 lines 10-14). It would have been obvious to one of ordinary skill in the art to employ the system of Wise to a machine tool, a production machine or a robot because it would provide great advantages such as overcoming a time-delay and speed of response delay of a tired or slow operator like a pilot in an aircraft.

### **Regarding claim 12**

Wehrich do not specifically disclose system experiencing perturbation effects from slot latching of a drive motor driving a machine tool, a production machine or a robot. "Official Notice" is taken for both the concept and advantages of system experiencing perturbation effects from slot latching of a drive motor driving a machine tool, a production machine or a robot is well known and expected in the art. U.S. Patent No. 5,777,871 to Wise teaches a servo-control system which include experiencing perturbation effect from slot latching of a drive motor (see FIG. 1 and Col. 5 lines 52-67). It would have been obvious to one of ordinary skill in the art to employ the system of Wise to a machine tool, a production machine or a robot because it would provide great advantages such as overcoming a time-delay and speed of response delay of a tired or slow operator like a pilot in an aircraft.

### ***Allowable Subject Matter***

8. Claims 7, 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday - Thursday from 6:30 AM - 5:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

Any response to this office action should be mailed to: **Commissioner for Patents, P.O. Box 1450, Alexandria VA 22313-1450**. Responses may also be faxed to the **official fax number (571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Thomas Pham**  
*Patent Examiner*

A handwritten signature in black ink, appearing to read 'Tom Pham', with a stylized flourish at the end.

January 23, 2006